

EVA SCHUELLER (California Bar No. 237886)
SIERRA CLUB ENVIRONMENTAL LAW PROGRAM
85 Second St., 2nd Floor
San Francisco, CA 94105
(415) 977-5637
(415) 977-5793 (facsimile)
eva.schueller@sierraclub.org

ERIC HUBER (Colorado Bar No. 40664)
(application for admission *pro hac vice* pending)
SIERRA CLUB ENVIRONMENTAL LAW PROGRAM
1650 38th Street, Suite 102W
Boulder, CO 80301
(303) 449-5595
(303) 449-6520 (facsimile)
eric.huber@sierraclub.org

REED SUPER (California Bar No. 164706)
SUPER LAW GROUP, LLC
131 Varick Street, Suite 1033
New York, NY 10013
(212) 242-2273
(855) 242-7956 (facsimile)
reed@superlawgroup.com

*Attorneys for Plaintiffs Sierra Club, Inc., Center for
Biological Diversity, Waterkeeper Alliance, Inc., California
Coastkeeper Alliance, Riverkeeper, Inc., Louisiana
Environmental Action Network, Suncoast Waterkeeper,
Inc., and Humboldt Baykeeper*

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION**

THE SIERRA CLUB, INC., CENTER FOR
BIOLOGICAL DIVERSITY, WATERKEEPER
ALLIANCE, INC., CALIFORNIA
COASTKEEPER ALLIANCE, RIVERKEEPER,
INC., LOUISIANA ENVIRONMENTAL
ACTION NETWORK, SUNCOAST
WATERKEEPER, INC., and HUMBOLDT
BAYKEEPER,

Plaintiffs,

Case No. Civ. 14-5141

COMPLAINT FOR DECLARATORY
AND INJUNCTIVE RELIEF

Administrative Procedure Act Case

v.

UNITED STATES NATIONAL MARINE
FISHERIES SERVICE and UNITED STATES
FISH AND WILDLIFE SERVICE,
Defendants.

NATURE OF THE CASE

1. This is an action under the Administrative Procedure Act, 5 U.S.C. §702 *et seq.*, challenging the Biological Opinion and Incidental Take Statement issued under Section 7 of the Endangered Species Act (“ESA”), 16 U.S.C. § 1536, by the National Marine Fisheries Service (“NMFS”) and the U.S. Fish and Wildlife Service (“FWS”) for the U.S. Environmental Protection Agency (“EPA”) regulations governing cooling water intake structures at existing power plants and other large industrial facilities, 79 Fed. Reg. 48,300 (August 15, 2014)(hereinafter the “Rule,” “Final Rule,” or the “316(b) Rule”).

2. Numerous power plants and other facilities are cooled by “once-through” cooling systems that draw billions of gallons of water each day from rivers, lakes, estuaries and coastal waters across the country. These systems draw and chemically treat water, run the water through systems of pipes to absorb waste heat from industrial operations, and then discharge the water back into the waterbody. In doing so, they kill or seriously injure aquatic organisms by crushing larger fish and other animals against the system intake screens (“impingement”) and pulling eggs, larvae, and smaller organisms through the system (“entrainment”). These cooling systems collectively destroy tens of billions of fish and hundreds of billions of organisms per year overall, including individuals from at least 266 federally “threatened” and “endangered” species, and adversely impact the designated critical habitat of certain species as well. Among the

1 federally “endangered” and “threatened” species impacted are species of sea turtles, salmon,
2 trout, sturgeon and marine mammals such as whales and sea lions.

3 3. Section 316(b) of the Clean Water Act, 33 U.S.C. § 1326(b), requires the EPA to issue
4 national regulations controlling the design and operation of cooling water intake structures for
5 power plants and other major facilities to minimize adverse environmental impacts, which
6 includes impingement and entrainment and the impairment of aquatic habitats. Accordingly,
7 EPA issued the 316(b) Rule, which applies to an estimated 1,065 total facilities with one or more
8 cooling water intake structures, including facilities in the Northern District of California.

9
10 4. Pursuant to ESA Section 7, the EPA consulted with NMFS and FWS (jointly hereinafter
11 the “Services”) on the 316(b) Rule. The Services issued a joint Biological Opinion including an
12 Incidental Take Statement on the 316(b) Rule on May 19, 2014.

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14 5. The Services’ Biological Opinion and Incidental Take Statement do not meet the
15 requirements of the Endangered Species Act, applicable regulations and the Administrative
16 Procedure Act. First, the Services’ Biological Opinion does not meet legal requirements for a
17 programmatic consultation because it does not consist of a comprehensive biological opinion for
18 the 316(b) Rule. Second, the Services’ Incidental Take Statement does not specify the impacts,
19 reasonable and prudent measures to minimize impacts and measures to protect marine mammals,
20 and does not require reinitiation of consultation. Third, the Services’ findings of no-jeopardy and
21 no-adverse modification of critical habitat for some or all of the threatened and endangered
22 species were arbitrary and capricious as contrary to the record or not reasonably explained in the
23 record. Fourth, the Services’ Biological Opinion was contrary to the ESA’s requirement that
24 consultations use the best scientific information available, 16 U.S.C. § 1536(a)(2). Fifth, the
25 Services’ methodology and resulting conclusions were arbitrary and capricious in several
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1 respects, such as not properly considering cumulative effects and near term effects on species
2 and habitat.

3 6. For these reasons and others set forth below, this action seeks a declaration that the
4 Services' Biological Opinion and Incidental Take Statement are arbitrary and capricious, an
5 abuse of discretion or otherwise not in accordance with law, in violation of the Administrative
6 Procedure Act, 5 U.S.C. §706(2)(A). This action also seeks an order setting aside and enjoining
7 the Services' Biological Opinion and Incidental Take Statement.
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9 **JURISDICTION, VENUE AND INTRADISTRICT ASSIGNMENT**

10 7. This action is brought pursuant to the Administrative Procedure Act, 5 U.S.C. § 706. This
11 Court has jurisdiction pursuant to 28 U.S.C. § 1331. The relief requested is authorized by 28
12 U.S.C. §§ 2201-2202.
13

14 8. Venue in this case is proper under § 28 U.S.C. §§ 1391(e). Plaintiff Sierra Club is
15 incorporated in California and its headquarters is in this judicial district and this division.
16 Plaintiff Center for Biological Diversity is incorporated in California and has an office in this
17 judicial district and this division. Plaintiff California Coastkeeper Alliance is incorporated in
18 California and is headquartered in this judicial district and this division. Plaintiff Humboldt
19 Baykeeper is a program of the Northcoast Environmental Center, which is incorporated in
20 California, and its office is located in this judicial district. Defendants are federal agencies.
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22 9. Intradistrict Assignment: Pursuant to Civil Local Rule 3-2(c), assignment to the San
23 Francisco Division is appropriate because Plaintiff Sierra Club is incorporated in California and
24 resides and maintains its headquarters in San Francisco County.
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PARTIES**A. Plaintiffs**

10. Plaintiff Sierra Club was founded in 1892 and is the nation's oldest grass-roots environmental organization. The Sierra Club is a national nonprofit organization that is incorporated in California and has its headquarters in San Francisco, California. It has more than one million members and supporters, including thousands of members in California. The Sierra Club is dedicated to the protection and preservation of the natural and human environment, including protecting threatened and endangered species and their habitat. The Sierra Club's purpose is to explore, enjoy and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; and to educate and enlist humanity to protect and restore the quality of the natural and human environments. The Sierra Club has members whose recreational, aesthetic, business and/or environmental interests have been, are being and will be adversely affected by the Defendants actions as set forth herein. Members of the Sierra Club study, observe and photograph threatened and endangered species and use and enjoy their habitat for outdoor recreation and scientific study of various kinds, including nature study, photography, bird-watching, fishing, canoeing, hunting, backpacking, camping, solitude, and a variety of other activities. The Sierra Club brings this action on behalf of itself and its members.

11. Plaintiff Center for Biological Diversity ("the Center") is a non-profit corporation with offices in San Francisco, California and is incorporated in California. The Center is actively involved in species and habitat protection issues throughout North America and has more than 50,000 members. One of the Center's primary missions is to protect and restore habitat and populations of imperiled species, including from the impacts of power plants and other large

1 industrial facilities. The Center's members and staff include individuals who regularly use and
2 intend to continue to use areas affected by the Biological Opinion at issue here, and are
3 particularly interested in protecting the many native, imperiled, and sensitive species and their
4 habitats that may be affected by cooling water intake structures.

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6 12. Plaintiff Waterkeeper Alliance Inc. ("Waterkeeper") is a national and international
7 501(c)(3) not-for-profit membership corporation, organized and existing under the laws of the
8 State of New York, which has its principal place of business in New York City. Waterkeeper
9 serves as an umbrella organization that unites more than 230 Riverkeeper, Soundkeeper,
10 Baykeeper, and other local Waterkeeper member organizations around the world that are devoted
11 to citizen action for the protection of their local waterbodies from pollution and other harms.
12 Waterkeepers patrol more than 2 million square miles of rivers, streams and coastlines
13 throughout North America and in other countries. Waterkeeper brings this case on behalf of itself
14 and its individual and organizational members, many of whom are adversely affected by the
15 Defendants' actions as set forth herein because they use and enjoy numerous waterways around
16 the United States for a variety of recreational, aesthetic, business and/or environmental purposes,
17 and their use and enjoyment of those waters is diminished by the taking of threatened and
18 endangered species and the adverse modification of those species' habitat by cooling water
19 intake structures in and around those waters.

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21
22 13. Plaintiff Riverkeeper, Inc. is a 501(c)(3) not-for-profit corporation organized and existing
23 under the laws of the State of New York with its principal place of business in Ossining, New
24 York. Riverkeeper is a member-supported watchdog organization, with approximately 4,000
25 active members, that is dedicated to defending the Hudson River and its watershed and
26 protecting the drinking water supply of nine million New York City and Hudson Valley
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1 residents. For more than forty-four years, Riverkeeper has stopped polluters, championed public
2 access to the river, influenced land use decisions, and restored habitat, benefiting the natural and
3 human communities of the Hudson River and its watershed. Many Riverkeeper members reside
4 on or near, and often use and enjoy the Hudson River and other water bodies around the State of
5 New York for a variety of purposes. Riverkeeper brings this case on behalf of itself and its
6 members, who are injured by Defendants' conduct which adversely affects many of the water
7 bodies that Riverkeeper members currently use and enjoy, or wish to use and enjoy.
8

9 14. Plaintiff California Coastkeeper Alliance ("CCKA") is a non-profit public benefit
10 corporation organized under the laws of the State of California and headquartered in San
11 Francisco, California. Founded in 1999, CCKA represents twelve non-profit Waterkeeper
12 member organizations (Klamath Riverkeeper, Humboldt Baykeeper, Russian Riverkeeper, San
13 Francisco Baykeeper, Monterey Coastkeeper, San Luis Obispo Coastkeeper, Santa Barbara
14 Channelkeeper, Ventura Coastkeeper, Los Angeles Waterkeeper, Orange County Coastkeeper
15 and Inland Empire Waterkeeper chapter, and San Diego Coastkeeper) that have thousands of
16 members residing throughout California, and is a member of the international Waterkeeper
17 Alliance. California Waterkeeper organizations work to protect and enhance the water quality
18 and overall health of coastal and inland waterways for the benefit of ecosystems and
19 communities throughout California. CCKA's mission is to coordinate and support the work of
20 local California Waterkeeper programs as a statewide voice for safeguarding California's waters,
21 and its world-renowned coast and ocean, for the benefit of all Californians and for California's
22 future. To further their goals, CCKA and CCKA's member groups actively seek federal and state
23 agency implementation of federal and state environmental laws and policies, and where
24 necessary, directly initiate administrative challenges and enforcement actions on behalf of
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1 themselves and their individual members in state and federal courts. Members of the
2 Waterkeeper organizations that comprise CCKA use and enjoy California's coastal and estuarine
3 waters for commercial, recreational, aesthetic, and conservation purposes, including fishing,
4 boating, swimming, environmental science, nature study, photography and many other pursuits.
5 Those members' use and enjoyment of the California shoreline and waters is diminished if the 38
6 California endangered species that inhabit them are not adequately protected from cooling water
7 intake structures.
8

9 15. Plaintiff Louisiana Environmental Action Network ("LEAN") is a Louisiana non-profit
10 corporation with its principal place of business in Baton Rouge, Louisiana. LEAN was formed in
11 1986 as a statewide umbrella environmental advocacy organization with more than 1,700
12 individual members, many of whom live, work, or recreate on the Gulf of Mexico and the Lower
13 Mississippi River south of Baton Rouge. LEAN's mission is to preserve and protect the state's
14 land, air, water, and other natural resources, and protect the organization's members and other
15 Louisiana residents from pollution threats. LEAN is licensed by Waterkeeper Alliance to operate
16 the Lower Mississippi Riverkeeper program. The mission of LEAN's Lower Mississippi
17 Riverkeeper program mission is to protect, preserve, and restore the Mississippi River Delta's
18 ecological integrity for current users and future generations through advocacy and citizen action.
19 LEAN's members are adversely affected by the Defendants' actions as set forth herein because
20 they use and enjoy the Lower Mississippi River, the Mississippi River Delta and the Gulf of
21 Mexico for a variety of purposes, and their use and enjoyment of those waters is diminished by
22 the taking of threatened and endangered species and the adverse modification of those species'
23 habitat by cooling water intake structures in and around those waters.
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16. Plaintiff Suncoast Waterkeeper, Inc. is a Florida not-for-profit corporation headquartered in Sarasota, Florida, with grass-roots membership in the greater Tampa Bay region, whose mission is to protect and restore the waterways of Florida's "Suncoast" through enforcement, fieldwork, advocacy, and environmental education for the benefit of the communities that rely upon these precious coastal resources. The "Suncoast" includes the coastal area from Tampa Bay to Charlotte Harbor, including Sarasota, Manatee, Hillsborough and Pinellas Counties. The Suncoast's major waterbodies include Sarasota Bay, portions of Tampa Bay, the Manatee River, Charlotte Harbor and the nearshore waters of the Gulf of Mexico. Suncoast Waterkeeper has members and staff whose interests have been, are being and will be adversely affected by the Defendants' actions as set forth herein because those members and staff use and enjoy the Suncoast's waterways for a variety of, and their use and enjoyment of those waters is diminished by the taking of threatened and endangered species and the adverse modification of those species' habitat by cooling water intake structures in and around those waters.

17. Plaintiff Humboldt Baykeeper is a program of the Northcoast Environmental Center, a non-profit educational organization formed in 1971 under the laws of the state of California, with its principal place of business in Arcata, California. Humboldt Baykeeper's mission is to safeguard Humboldt County's coastal resources for the health, enjoyment, and economic strength of the Humboldt Bay community through education, scientific research, and enforcement of laws to fight pollution. To further these goals, Humboldt Baykeeper actively seeks federal and state agency implementation of environmental laws and, where necessary, directly initiates enforcement actions on behalf of itself and its members. Humboldt Baykeeper brings this case on behalf of itself and its members whose use and enjoyment of coastal resources

1 is diminished by the taking of threatened and endangered species and the adverse modification of
2 those species' habitat by cooling water intake structures.

3 18. Plaintiffs have members that use and enjoy the wildlife habitat, rivers, streams, and
4 environment in areas subject to and affected by the Biological Opinion at issue in this case.
5 Plaintiffs' members derive recreation, aesthetic and spiritual benefit from their activities and
6 intend to continue to use and enjoy the wildlife habitat, rivers, streams and healthy environment
7 of these areas on an ongoing basis in the future. Plaintiffs' members engage in wildlife
8 observation, research, photography, restoration activities, and educational programs involving
9 endangered and threatened species that are impacted by the Biological Opinion at issue.
10 Plaintiffs and their members have participated and continue to participate in efforts to protect
11 these species and their habitats. Plaintiffs' members will continue to maintain an interest in these
12 species and areas in the future. Additionally, Plaintiffs and their members and staff have an
13 interest in ensuring that Defendants comply with all applicable laws, including the substantive,
14 procedural and informational provisions of the Endangered Species Act.
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17 19. The interests of the members of the plaintiff organizations will be impaired if the cooling
18 water intake structures are allowed to continue to take threatened and endangered species
19 through impingement and entrainment and adversely modify their critical habitat, without
20 adequate consultation and protections required of the NMFS and the FWS by the Endangered
21 Species Act.
22

23 **B. Defendants**
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25 20. The National Marine Fisheries Service (NMFS), also known as NOAA Fisheries, is an
26 agency of the United States Department of Commerce responsible for administering the
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provisions of the Endangered Species Act with regard to threatened and endangered marine species.

21. The U.S. Fish and Wildlife Service (FWS) is an agency of the U.S. Department of the Interior responsible for administering the provisions of the Endangered Species Act with regard to threatened and endangered terrestrial and freshwater species.

STATUTORY FRAMEWORK

A. Review under the Administrative Procedure Act

22. Biological opinions issued pursuant to Section 7 of the ESA are reviewed under Section 706(2)(A) of the Administrative Procedure Act (“APA”). *Bennett v. Spear*, 520 U.S. 154, 175 (1997).

23. APA Section 706(2)(A) authorizes courts to hold unlawful and set aside any final agency action, findings, and conclusions that are arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law. 5 U.S.C. § 706(2)(A).

B. The Cooling Water Intake Structure Rule

24. Clean Water Act (“CWA”) Section 316(b) directs EPA to promulgate regulatory standards for industrial cooling water intake structures that reflect the “best technology available for minimizing adverse environmental impact.”

25. Pursuant to CWA Section 316(b), on August 15, 2014, EPA published its Final Rule for National Pollutant Discharge Elimination System – Final Regulations to Establish Requirements for Cooling Water Intake Structures at Existing Facilities and Amend Requirements at Phase I Facilities. 79 Fed. Reg. 48,300; *see also* Agency Docket ID No. EPA–HQ–OW–2008–0667.

26. The Final Rule continues the status quo. Under the Final Rule, all permit conditions are determined case-by-case through the issuance of National Pollution Discharge Elimination

1 System (“NPDES”) permits. The Final Rule offers permitting agencies (the States or EPA) a
2 choice of seven possible standards for impingement controls, no standard for entrainment
3 controls, and a lengthy timeline of up to ten years (or more) for compliance.

4 **C. The Services’ Duties under the Endangered Species Act**

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6 27. The ESA vests primary responsibility for administering and enforcing its requirements
7 with the Secretaries of Commerce and Interior. FWS administers the list of threatened and
8 endangered plants and animals including mammals, birds, reptiles, amphibians, fishes, insects,
9 plants, and other creatures. NMFS manages threatened and endangered marine species and
10 anadromous fishes such as salmon and steelhead.

11
12 28. When an agency proposes an action that is likely to affect an endangered or threatened
13 species, the agency must consult with the Services to ensure that the action does not jeopardize
14 the species’ continued existence or result in the destruction or adverse modification of the
15 species’ designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. §§ 402.01, 402.14. The
16 framework for this consultation is established in Section 7 of the ESA, and its implementing
17 regulations. *Id.*

18
19 29. The Services must review all information provided by the action agency, as well as any
20 other relevant information, to determine whether the proposed action is likely to jeopardize a
21 listed species or destroy or adversely modify its designated critical habitat. 50 C.F.R. §
22 402.14(h)(3). This determination is set forth in a biological opinion from the Services. *Id.*; 16
23 U.S.C. § 1536(b)(3)(A).

24
25 30. The scope of agency actions subject to consultation are broadly defined to encompass “all
26 activities or programs of any kind authorized, funded, or carried out, in whole or in part, by
27 Federal agencies.” 50 C.F.R. § 402.02.

31. In evaluating the impacts of the action, the Services must consider the “effects of the action” and the “cumulative effects” within “the action area.” 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14(g)(3). Each of those terms is defined in the regulation.

32. The “action area” must include “all areas to be affected directly or indirectly by the Federal action, and not merely the immediate area involved in the action.” *Id.*

33. The “effects of the action” include its “direct and indirect effects ... on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline.” *Id.*

34. The “‘cumulative effects’ are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation.” 50 C.F.R. § 402.02

35. The environmental baseline, in turn, is defined to include “the anticipated impact of all proposed Federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.” 50 C.F.R. § 402.02.

36. The Services’ Consultation Handbook (March, 1998) at Section 5 recognizes different types of consultations, *i.e.* Proactive Conservation Reviews (“programmatic consultations”), National Consultations, Regional or Ecosystem Consultations, and Incremental Consultations.

37. Nevertheless, Section 7 requires the Services to consider all phases of the agency action, including all of the post-permit activities authorized under the action, in one comprehensive biological opinion. 16 U.S.C. § 1536(a)(2); *Conner v. Burford*, 848 F.2d 1441, 1453 (9th Cir. 1988). Complexity or uncertainty does not excuse the Services from drafting a complete and comprehensive biological opinion. *Id.* at 1454.

38. In formulating its biological opinion and determining whether an action will jeopardize a species or destroy or adversely modify its critical habitat, the Services must use the best scientific and commercial data available. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8). The Services cannot just rely on the information provided by the action agency; rather, they are required to seek out and consider all existing scientific data.

39. If the Services determine that the action is likely to jeopardize a species, the biological opinion must specify “reasonable and prudent alternatives” that will avoid jeopardy. 16 U.S.C. § 1536(b); 50 C.F.R. § 402.14(h)(3). The Services must also formulate discretionary conservation recommendations to reduce or minimize the action’s impacts on listed species or critical habitat. 50 C.F.R. § 402.14(g)(6).

40. The ESA also prohibits any person – whether a private or governmental entity – from “taking” any listed endangered species of fish or wildlife. 16 U.S.C. § 1538(a)(1)(B). “Take” is defined to mean harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in such conduct. *Id.* at § 1532(19). And “harm” is defined to include “significant habitat modification or degradation which actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding or sheltering.” 50 C.F.R. § 222.102.

41. When the Services conclude that an action will not jeopardize the existence of a listed species or adversely modify its habitat, but that the action is likely to result in incidental takings of listed species, the Services must provide a written statement in the biological opinion that authorizes such takings. 16 U.S.C. § 1536(b)(4), (o). This statement, called an Incidental Take Statement, is particularly significant, in that it “functions as a safe harbor provision immunizing persons from Section 9 liability and penalties for takings committed during activities that are

otherwise lawful and in compliance with its terms and conditions.” *Arizona Cattle Growers’ Ass’n v. U.S. Fish & Wildlife*, 273 F.3d 1229, 1239 (9th Cir. 2001)(citing 16 U.S.C. §1536(o)).

42. The Incidental Take Statement must: (i) specify the impact of such incidental taking on the species, (ii) specify those “reasonable and prudent” measures that the Services consider “necessary or appropriate” to minimize such impact, (iii) in the case of marine mammals, specify those measures that are necessary to comply with Section 1371(a)(5), and (iv) set forth the terms and conditions (including, but not limited to, reporting requirements) that must be complied with by the federal agency to implement the measures specified under clauses (ii) and (iii). 16 U.S.C. § 1536(b)(4). Instead of a numerical value, a “surrogate is permissible if no number may be practically obtained. The chosen surrogate, however, must be able to perform the functions of a numerical limitation.” *Or. Natural Res. Council v. Allen*, 476 F.3d 1031, 1038 (9th Cir. 2007).

43. The Services “may not rely on plans for future actions to reduce threats and protect a species.” *Or. Natural Resources Council v. Daley*, 6 F. Supp. 2d 1139, 1154 (D. Or. 1998). The agencies should be “reasonably certain” that promised future actions will occur before concluding that a threatened species is not jeopardized. *Northwest Envtl. Advocates v. EPA*, 268 F. Supp. 2d 1255, 1273 (D. Or. 2003).

FACTUAL AND PROCEDURAL BACKGROUND

A. The Services’ Consultation on the 316(b) Rule

44. EPA’s Final 316(b) Rule will be implemented through the National Pollutant Discharge Elimination System (NPDES). That is, the Rule affects the conditions of NPDES permits issued to power plants and industrial facilities that withdraw more than two million gallons of cooling water daily. Under the Rule, when a NPDES permit is issued, the permit issuing agency (EPA for EPA administered waters or the state environmental agency in delegated states) will choose

1 from among seven impingement control options for the discharger and implement a process for
2 determining entrainment controls.

3 45. On or about June 18, 2013, EPA submitted its Biological Evaluation and request for
4 formal ESA Section 7 consultation to NMFS and the FWS on the Final 316(b) Rule.

5 46. On or about May 19, 2014, NMFS and FWS issued their joint Endangered Species Act
6 Section 7 Consultation, Programmatic Biological Opinion on the U.S. Environmental Protection
7 Agency's Issuance and Implementation of the Final Regulations Section 316(b) of the Clean
8 Water Act (hereafter the Biological Opinion or "BiOp").

9 47. The Services found that the 316(b) Rule would not jeopardize any threatened species or
10 adversely modify any designated critical habitat. They based this conclusion on their review of
11 the EPA's Biological Evaluation and what the Services' deemed best available science.
12 However, the Services noted that there was not sufficient information to evaluate the impacts of
13 the Rule fully since the Rule provides that measures to control impingement and entrainment will
14 not be chosen until a site-specific NPDES permit is issued.

15 48. The BiOp did not assess the impact of any particular technological option under the
16 316(b) Rule on a particular species or designated critical habitat. Instead, the BiOp's no-jeopardy
17 and no adverse modification of critical habitat findings are based on the establishment of a
18 process for future, site-specific review of thousands of NPDES permits to be done by the
19 Services. That process involves identification of species, facility specific analysis, and voluntary
20 consultation between the discharger, the NPDES permit writer (State or EPA), the Services and
21 the EPA.

22 49. The Services adopted EPA's approach to this site-specific ESA review process (as set out
23 in a letter sent from EPA to the Services in April, 2014, near the end of the consultation),
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1 whereby the permitting agency will provide the Services with copies of any applications for
2 discharge permits and drafts of the permit, the Services may discuss any concerns with the
3 permit writer and EPA, and may suggest any necessary controls (which, however cannot include
4 measures that would significantly modify the project).

5
6 50. The Biological Opinion defines the scope of the action under review to include “all
7 aspects of EPA’s issuance and implementation of the 316(b) Rule, *including issuance of NPDES*
8 *permits . . .*” But the Biological Opinion was *not* based on analysis of the likely impacts of the
9 issuance of NPDES permits under the Rule. Instead, the BiOp is strictly limited to a review of
10 the site-specific *process* that will affect the issuance of NPDES permits in the future, and does
11 not consider the likely effects of those permits themselves. The Services refer to this as
12 “programmatic” consultation.
13

14 51. The Services’ future, site-specific review is not performed under ESA Section 7. It
15 differs from a Section 7 consultation in that it does not require reasonable and prudent
16 alternatives if jeopardy or adverse modification is found, or, if no-jeopardy is found, the future
17 process will not require that an Incidental Take Statement (ITS) issue, that the ITS quantifies the
18 take, that the ITS issues reasonable and prudent measures, and/or that the measures must be
19 incorporated into the 316(b) Rule or the NPDES permit. It also differs from a Section 7
20 consultation in that, in most cases, there will be no future federal action to be consulted upon.
21 There is no guarantee that the site-specific analysis will evaluate the pertinent effects,
22 particularly cumulative effects, of continued operation of cooling water intakes by waterbody,
23 watershed, regionally or nationally.
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26 52. Along with the Biological Opinion, the Services’ issued an Incidental Take Statement
27 that authorizes the “take” of listed species “when the Rule, including the implementation
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process, is carried out as described in [the BiOp].” The amount or extent of take is not specified. The reasonable and prudent measures are not specified. Rather, the reasonable and prudent measure is: “EPA will use its authorities under the CWA to minimize impacts to listed species pursuant to the 316(b) Rule and CWA.” The measures necessary to comply with Section 101(a)(5) of the Marine Mammal Protection Act are not specified. And, the “Reinitiation Notice” states “this concludes formal consultation on the action.” The ITS does not contain any threshold or other “trigger” to identify a point at which EPA must reopen its consultation with the Services on the implementation of this Rule.

B. FACTS

1. Volume of cooling water intakes

53. Over half of all the water withdrawn each year from the nation’s rivers, lakes, harbors and estuaries is used to dissipate waste heat at large industrial facilities. Power plants are the predominant users of cooling water.

54. On any given day, industrial facilities (mostly power plants) withdraw in excess of 200 billion gallons of water, or an average rate of 75 *trillion* gallons per year, to meet their cooling needs. That is enough water to completely empty America’s thirty largest reservoirs, including Lake Mead and Lake Powell, assuming that they were filled to their maximum capacity. The demand for industrial cooling water would drain Lake Shasta in a week. All of that water is drawn out of waterbodies teeming with life, waterbodies that are home to hundreds of endangered species.

2. Impacts of cooling water intakes

Impingement and Entrainment

55. The most direct impacts of cooling water withdrawals are the fish kills caused by impingement and entrainment. Every year, hundreds of millions of larger fish and other animals are trapped and crushed (“impinged”) against the screens that protect power plant intake systems. Hundreds of *billions* of smaller animals, organisms too small to be screened out, are drawn into cooling systems (“entrained”) and subjected to lethal levels of mechanical, thermal, and toxic stress.

56. Nationally, EPA estimates that approximately 500 billion organisms (adults, eggs, and larvae) are killed by cooling water intakes every year. But EPA notes that even this estimate is based on studies that likely undercount the number of fish killed.

Thermal Discharge

57. The amount of heat discharged back into aquatic habitats at the tail end of a once-through cooling system also is immense – at power plants, it is almost equal to the amount that is successfully converted to electricity.

58. Thermal pollution has long been recognized to harm aquatic ecosystems. EPA explains that thermal discharges can: modify photosynthetic, metabolic, and growth rates; increase the growth of pathogens and infection rates; reduce levels of dissolved oxygen in the water; alter the location and timing of fish spawning, aggregation, and migration; and cause thermal shock – rapid and fatal changes in an animal’s body temperature. Thermal discharges impair efforts to restore and protect waterbodies for miles downstream of an outfall.

Community-Wide Impacts

59. The loss of so many hundreds of billions of organisms harms entire ecosystems, including species that depend on the fish that are killed. Community-level impacts include disruption of aquatic food webs, disruption of nutrient cycling and other biochemical processes, alteration of species composition, reductions in overall levels of biodiversity, and degradation of the overall aquatic environment. As EPA noted in its Biological Evaluation, cooling water intakes decrease the “resilience” or “the compensatory ability of an aquatic population,” which is “the ability to resist and recover from . . . ecosystem damages.”

3. Cooling water and endangered species

60. There are three basic ways in which ESA-listed species are affected by cooling water systems: direct kill at the intake through impingement and entrainment; indirect harm through loss of prey species to the intake; and habitat degradation caused by changes in flow regime, thermal discharge, and discharges of pollutants.

61. Threatened and endangered species are among the 500 billion organisms impinged and entrained at cooling water intakes every year.

62. Risks to threatened and endangered species from cooling water systems are widespread nationwide. For instance, EPA initially estimated in its Biological Evaluation that:

- cooling water intakes overlap with habitat used by 215 listed aquatic species,
- there are 21,039 potential interactions between a particular intake and a particular species (meaning that, on average, each species is affected by nearly 100 intakes),
- 94% of all cooling water intakes overlap with at least one listed species, and
- 153 facilities kill fish and release waste heat into habitat that has been designated as critical for one or more endangered species (296 total overlaps).

63. The Services' Biological Opinion expands on EPA's estimate. It finds that 266 endangered species or significant subpopulations (not 215) are affected by the Rule.

64. At least 17 species and populations protected by NMFS and affected by cooling water intakes are present in California:

- Southern Resident killer whale (winter grounds off CA coast)
- Fin whale (CA coast)
- Humpback whale (CA coast)
- Steller sea lion (CA coast - critical habitat)
- Leatherback sea turtle (CA coast - critical habitat)
- Loggerhead sea turtle (CA coast)
- Chinook salmon (CA Coastal ESU - critical habitat)
- Chinook salmon (Central Valley Spring-run ESU - critical habitat)
- Chinook salmon (Sacramento River Winter-run ESU - critical habitat)
- Coho salmon (Central CA Coast ESU - critical habitat)
- Coho salmon (Southern OR/Northern CA Coast - critical habitat)
- Steelhead Trout (CA Central Valley DPS - critical habitat)
- Steelhead Trout (Central CA Coast DPS - critical habitat)
- Steelhead Trout (Northern CA DPS - critical habitat)
- Eulachon (Southern DPS-Northern CA)
- Green Sturgeon (Southern DPS-Northern CA)
- Black Abalone (CA coast - critical habitat)

65. Twenty-one species protected by the FWS also overlap with cooling water intakes in California:

- Delta Smelt
- Lahontan Cutthroat Trout
- Bull Trout
- Tidewater Goby
- Unarmored Threespine Stickleback
- Desert Pupfish
- Santa Ana Sucker
- Razorback Sucker
- Colorado Pikeminnow (Squawfish)
- Bonytail Chub
- Mohave Tui Chub
- California red-legged frog
- Marbled Murrelet
- Western Snowy Plover
- Yuma Clapper Rail
- Light-Footed Clapper Rail
- California Clapper Rail
- California Least Tern
- Least Tern
- Short-Tailed Albatross
- Southern Sea Otter

66. The Services' BiOp discusses impacts from cooling water systems on numerous species in California. The Pittsburg and Contra Costa Plants in the San Francisco Bay Delta, for

1 example, impinge and entrain more than 300,000 endangered and threatened species per year,
2 including Delta smelt, Sacramento splittail, Chinook salmon, and steelhead trout.

3 67. Leatherback sea turtles are an endangered species with designated critical habitat along
4 California's central coast. NMFS states that "substantial numbers of leatherback sea turtles could
5 die each year, as a result of entrapment in CWIS." The take of "substantial numbers" of
6 leatherbacks is problematic because "the global population of adult females has declined over 70
7 percent in less than one generation."

8
9 68. For Loggerhead sea turtles, another California species, NMFS expects that more than
10 2,386 turtles will continue to be taken by cooling water intakes ever year, and even more of these
11 endangered turtles may be harmed by loss of prey to intakes and other impacts. NMFS explains
12 that "[t]he North Pacific Ocean DPS [Distinct Population Segment of Loggerheads] has a small
13 nesting population of a few thousand females that produces 7,000 to 8,000 nests annually. . . a
14 small population size that is not resilient to further perturbation."

15
16 69. NMFS also details cases of indirect harm in which ESA-listed species are harmed
17 because EPA's Rule allows cooling water intakes to continue operating in a manner that reduces
18 their food availability or habitat. For example, NMFS discusses how the loss of endangered
19 salmon populations to cooling water intakes – significant in itself – has adverse effects for
20 endangered whales.

21
22 70. The endangered Southern resident killer whale population off the West Coast has
23 collapsed to half of its historic population size. NMFS notes that the killer whales' recovery may
24 be limited by prey availability because the whales have a highly specialized diet: they are heavily
25 dependent on Chinook salmon for 80% of total caloric intake. Cooling water intakes kill about
26 77,000 Chinook salmon yearly, including many from endangered or threatened Chinook
27
28

1 populations in California, Oregon, and Washington, out of a total annual population of between
2 961,000 and 1.2 million Chinook. Thus, the best case scenario is that cooling water intakes kill
3 “only” 6.3% of the endangered and threatened Chinook salmon that the endangered Southern
4 resident killer whales rely on. NMFS notes a similar connection between the threatened pacific
5 eulachon (“candlefish”), which is also harmed by cooling water intakes, and the endangered
6 Beluga whale population of Alaska’s Cook Inlet.

7
8 71. The Services’ BiOp also discusses impacts from cooling water systems on numerous
9 other species and habitats throughout the country. For example, in Appendix C of the Biological
10 Opinion, NMFS calculates that, under EPA’s Rule, 484 cooling water intakes in the habitat of
11 endangered Atlantic Sturgeon will continue to take at least: 329 Atlantic sturgeon from the Gulf
12 of Maine Distinct Population Segment (DPS), 493 from the New York Bight DPS, 383 from the
13 Chesapeake Bay DPS, 274 from the Carolina DPS, and 438 from the South Atlantic DPS every
14 year. Based on these figures and the condition of remaining sturgeon populations, NMFS
15 concludes that “some DPSs, such as Carolina, Chesapeake Bay, and Gulf of Maine DPSs would
16 be expected to experience extirpations more quickly.”
17
18

19 72. NMFS also expects that cooling water intakes will continue to entrap at least 1,400
20 endangered female Hawksbill sea turtles annually under EPA’s Rule, which “represents a
21 minimum of 5 to 6 percent annual loss to the species.”
22

23 73. Other areas and species that are covered by the Services’ action include but are not
24 limited to the lower Mississippi River and the coastal waters and rivers of Louisiana, which are
25 designated as critical habitat for numerous endangered and threatened species, including the
26 endangered pallid sturgeon and the threatened Gulf sturgeon. The area’s power plants, oil and
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28

1 petrochemical plants, and other industrial facilities utilize more than one hundred large cooling
2 water intakes regulated under the 316(b) Rule.

3 74. The Services' action also covers endangered and threatened species on the Florida Gulf
4 Coast centered on Sarasota and Tampa Bay, and this area is home to some of the nation's largest
5 cooling water intakes, including those at the Anclote and Big Bend Power plants, each of which
6 is designed to draw more the one billion gallons of water daily.
7

8 75. The Services' action also covers marine mammals and threatened and endangered species
9 in the Pacific Northwest, including sea otters, sea lions, endangered Southern resident killer
10 whales, a variety of endangered sea turtle and sturgeon species, and dozens of threatened and
11 endangered salmonid populations. The coastal habitats and rich inland rivers of the Pacific
12 Northwest are affected by more than 50 cooling water intakes subject to regulation under the
13 316(b) Rule.
14

15 **4. Cumulative effects of intakes and other stresses on endangered species**

16 76. Threatened and endangered species harmed by cooling water intakes are also subject to
17 many other environmental stresses. For example, EPA reports that many of the organisms
18 affected by the Rule already reside in impaired [heavily polluted] waterbodies. Other stresses
19 affecting threatened and endangered species harmed by the Rule include degraded water and
20 sediment quality, low dissolved oxygen levels, eutrophication, temperature, fishing, channel or
21 shoreline (habitat) modification, hydrologic regime changes, invasive species, infrastructure
22 development, construction and operation of dams along major waterways, and expansion of
23 agricultural or grazing activities, among others. Together, these impacts have a compounding
24 effect on the health of individual endangered animals and a cumulative effect on the likelihood
25 of survival and recovery of the species as a whole.
26
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77. The Biological Opinion's analysis of the impacts of these cumulative effects is short: [M]any of these activities are expected to continue within the range of various federally protected wildlife, fish, and plant species, and could contribute to cumulative effects to the species within the action area. Species with small population sizes, endemic locations, or slow reproductive rates will generally be more susceptible to cumulative effects.

5. Evidentiary basis for the Biological Opinion

78. The Biological Opinion is based chiefly on the information submitted by EPA in its Biological Evaluation of June 2013, and on what the Services' deemed to be the best available science obtained through other means. However, the Services noted that the Biological Evaluation left the Services with a "paucity of information" and did not provide sufficient information for the Services to evaluate the impacts of EPA's Rule fully.

79. A number of the plaintiffs in this action submitted supplementary data to the Services in October 2013 in an effort to assist the Services in identifying and accessing the best available scientific data for the Biological Opinion. But there are significant gaps between the issues addressed in the peer-reviewed scientific literature that plaintiffs provided to the Services and the topics addressed in the Biological Opinion. Several of the most important peer-reviewed studies provided by plaintiffs are not included in the bibliography of the Biological Opinion.

80. The Services' were also aware of other available scientific information that they did not use in the BiOp. For instance, NMFS was aware of more sturgeon entrainment studies pertaining to the Mercer facility on the Delaware River than it cites in the BiOp.

6. NMFS analysis in the Biological Opinion

81. As noted above, the Biological Opinion contains no analysis of the likely impact that permits issued under EPA's rule will have on any particular species, populations, or designated critical habitat. The Biological Opinion blames this on a lack of information:

The paucity of information submitted by EPA regarding facilities with CWIS does not allow the Services to identify facility locations, the specific actions of those facilities that may result in take of listed species, the number of individuals that might be taken by those actions, or the proportion of populations of endangered or threatened species these might represent.

82. Despite this conclusion, NMFS appended to the Biological Opinion as "Appendix C" exactly such species-specific analyses of the effects of the Rule, as noted above with respect to sturgeon, sea turtles, salmon and whales. NMFS' species-specific analyses cover nearly all of the species or families under its jurisdiction.

83. The analysis that NMFS performed in Appendix C is both broader and more comprehensive than the analysis contained in the Biological Opinion itself. NMFS used the locations of facilities as reported to the Services by EPA, combined with data about the adverse impacts of cooling water intakes and the historic losses of endangered species at intakes, and made conservative extrapolations from that data. NMFS also drew on the recovery plans it had prepared for individual species, on previous biological assessments and BiOps, on available academic literature, and on previously-issued incidental take statements. Together, these data sources enabled NMFS to estimate the likely impacts of EPA's Rule on specific species. Thus, in direct contradiction to the conclusion stated in the main Biological Opinion, NMFS was indeed able to "identify facility locations, the specific actions of those facilities that may result in

1 take of listed species, the number of individuals that might be taken by those actions, [and] the
2 proportion of populations of endangered or threatened species these might represent.”

3 84. NMFS reached detailed and disturbing conclusions for a number of species. For
4 example, NMFS concluded that continued operation of old cooling water intakes under EPA’s
5 Rule is likely to extirpate some genetically isolated distinct population segments of Atlantic
6 sturgeon quickly, and to have significant effects on even the largest populations. NMFS reached
7 similar conclusions about the high volume of take relative to the small population size of several
8 species of sea turtles and salmonids. And NMFS concluded that the take of endangered
9 salmonids was likely to have significant implications for endangered killer whales too.

10
11 85. NMFS also concluded that EPA’s Rule impacts designated critical habitats. For example,
12 NMFS identified 170 instances in which a cooling water intake is located in the designated
13 critical habitat of particular salmonid species (EPA had only identified 115 such instances in its
14 Biological Evaluation). NMFS noted that all of the endangered and threatened salmonids that it
15 protects are vulnerable to cooling water intakes in their breeding habitat because intake and
16 discharge of cooling water from CWIS’ are likely to disrupt habitat and water flow rates in ways
17 that “reduc[e] the viability of eggs and fry.” NMFS also identified other key features of
18 salmonid designated critical habitats, including: “sites for spawning, rearing, and migration;”
19 “safe passage conditions;” and “water quality, quantity, temperature, and velocity.” The agency
20 then noted that CWIS “alter flow regimes (including velocity and turbidity), increase water
21 temperatures, reduce water quality (through the introduction of chlorine), reduce prey
22 availability, and obstruct movement of salmon.”
23

24 86. NMFS found that marine mammals will be taken by facilities covered by the Rule.
25 NMFS disagreed with EPA’s initial assessment that pinnipeds were not likely to be directly
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1 affected by CWIS since many pinnipeds have been entrapped in CWIS. NMFS found that monk
2 seals and western DPS of stellar sea lions would be “directly exposed to entrapment.” EPA also
3 noted “impingement mortality” for sea otters and pinnipeds in its biological evaluation.

4 87. Also regarding marine mammals, the definition of “take” includes “harm,” 16 U.S.C.
5 §1532(19), and “harm” includes “significant habitat modification or degradation that actually
6 kills or injures wildlife.” 50 C.F.R. §17.3. According to the Biological Opinion, certain species
7 of whales are injured by CWIS inasmuch as primary constituent elements of their critical habitat
8 are adversely impacted, *e.g.* salmon. This constitutes a “take.”

9
10 88. With respect to sea turtles, in Appendix C NMFS notes that many power plant intakes
11 entrap sea turtles every year, but only 14 plants nationwide (out of the hundreds subject to
12 regulation) are currently operating subject to incidental take permits that allow this take. While
13 all 14 of these power plants monitor periodically for entrapment, the quality of data from most
14 plants is patchy and only one plant provides reasonably high quality data on turtle entrapment.
15 Based on this track record, NMFS concluded that “most instances of entrapment, and resulting
16 injury or mortality, are likely to go undetected and unreported. . . Since all entrapment constitute
17 incidental take (i.e., via entrapment or harassment), we conclude that the majority of incidental
18 take has not been exempted by the Services through an ITS or an ESA Section 10 permit and that
19 EPA has not structured its Rule to provide this information in the future.”

20
21 89. NMFS is aware that there are facilities covered by the Rule and the BiOp that are
22 engaged in a take of threatened or endangered species without an ESA Incidental Take Permit or
23 Incidental Take Statement.
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7. FWS analysis in the Biological Opinion

90. FWS did not provide any species specific analyses in the Biological Opinion even though it had access to the same sources of information as NMFS. In fact, for species like the pallid sturgeon, FWS provided less information and analysis than EPA provided in its Biological Evaluation and in the preamble to the final Rule.

91. FWS concluded that it could not calculate either the number of pallid sturgeon likely to be lost under the Rule, or the consequences of that loss for the species. But in the preamble to the final rule EPA estimated that the Rule would allow cooling water intakes to continue killing an average of 67.6 age-one equivalent pallid sturgeon annually. And in January 2014, the FWS released a Revised Recovery Plan for the Pallid Sturgeon in which FWS identified entrainment of sturgeon in cooling water intakes as a threat to the species that must be controlled to ensure the species' recovery. FWS estimated the population of pallid sturgeon at less than 6,500 fish, broken into a number of smaller, largely isolated subpopulations, some of which have as few as 45 members.

92. FWS is aware that there are facilities covered by the Rule and the BiOp that are engaged in a take of threatened or endangered species without an ESA Incidental Take Permit or Incidental Take Statement.

CAUSES OF ACTION

COUNT I

[Violation of the ESA and 5 U.S.C. § 706(2)(A)]

The Services' "Programmatic" Biological Opinion
Violated the ESA and Applicable Regulations and is Arbitrary, Capricious,
an Abuse of Discretion, or Otherwise Not in Accordance with Law

93. Plaintiffs reallege, as if fully set forth herein, each and every allegation contained in the preceding paragraphs.

94. A Biological Opinion must review all relevant information, evaluate each species' current status, provide a detailed evaluation of the action's effects, and determine whether the action will jeopardize the survival and recovery of any listed species or adversely modify the species' critical habitat within the action area. 50 C.F.R. § 402.14(g)-(h). The Services' Biological Opinion does not meet these requirements.

95. The Services' Biological Opinion relies on voluntary, future, facility-specific analysis conducted by State agencies or EPA to possibly disclose and mitigate harm to listed species and critical habitat from the choice of options under the Rule. However, the Services' cannot rely on this future facility-specific process in rendering their no-jeopardy and no adverse modification opinions on the Rule. The Services must analyze the effect of the entire agency action (in this case the 316(b) rulemaking), consider consequences of all stages of implementing the 316(b) Rule, and render a comprehensive biological opinion for all phases of the agency action in the original Biological Opinion. The Services failed to do this.

96. The Services also improperly defined the Biological Opinion as "programmatic." Under their own handbook's definition, programmatic consultations are defined as those consultations "addressing an agency's multiple actions on a program, regional or other basis." A review of a nationwide permitting rule is, instead, a national consultation where the whole action must be reviewed. The Consultation Handbook defines "National Consultation" as a review of an agency action "affecting many species over all or a major portion of the country." In these national consultations: "(1) specific species affected by the action can be identified; (2) specific actions affecting these species can be described; (3) the effects of the action on the species can be

1 determined during consultation; and (4) the consultation fulfills an agency's obligation under
2 section 7(a)(2).” The Services should have addressed the Rule under a “national consultation”
3 and addressed all four of these elements but did not.

4 97. The Services’ Biological Opinion also is arbitrary and capricious in not meeting the legal
5 requirements for an incremental consultation. The 316(b) Rule is not one that occurs in stages,
6 *i.e.* the EPA 316(b) rulemaking is a final and complete action. Even if this Rule was properly
7 considered an “incremental” action, the Services’ ESA Consultation Handbook and 50 C.F.R. §
8 402.14(k) have requisites for incremental consultations that are not met by this BiOp. This
9 includes continuing consultation with respect to the entire action, biological opinions for each
10 incremental step, a finding that the incremental step does not violate 7(a)(2) of the ESA (*i.e.*
11 cause jeopardy), and sufficient data on which to base the final biological opinion on the entire
12 action.
13

14 98. The Services also improperly limited the scope of impacts they analyzed. Section 7 of the
15 ESA requires the Services to evaluate the effects of all phases of the agency action, including the
16 effects of subsequently permitted activities, in assessing the threat to endangered species and
17 their habitats. 16 U.S.C. § 1536(a)(2). This Biological Opinion, however, covers only the process
18 described in the 316(b) Rule, and not the post-permit effects of operating the once-through
19 cooling water intake structures authorized by the Rule, or any one of the particular options that
20 can be chosen by State permitting agencies. The Services failed to analyze the impacts of each of
21 the options allowed under the Rule and failed to analyze the impacts of choosing any particular
22 option allowed under the Rule.
23
24
25

26 99. In addition, the Services failed to require any future biological opinions for the later
27 facility-specific choice of options under the Rule. Their later facility-specific review process
28

1 does not meet the requirements of an ESA Section 7 consultation since state-issued NPDES
2 permits are not subject to Section 7. Even for EPA issued permits, or if state permits were
3 subject to Section 7, Section 7 is not satisfied here since the Services' process lacks provision for
4 a biological opinion, formal reasonable and prudent alternatives, or, if no jeopardy is found, the
5 issuance of an Incidental Take Statement. Instead of a complete consultation on the 316(b) Rule,
6 the Services have set up a system that will involve potentially hundreds of individual permit
7 reviews outside the Section 7 consultation process, and without a provision for reinitiation of
8 consultation under Section 7 on the entire Rule.
9

10 100. The Services' reliance on the later facility-specific review process is also arbitrary and
11 capricious because it will focus on a smaller area than the Rule and not consider all cumulative
12 effects of the Rule. A facility-specific analysis will rarely if ever capture the watershed, basin,
13 regional and national impacts and perspective.
14

15 101. The Services' reliance on a future, facility-specific analysis is also arbitrary and
16 capricious because they are relying on an analytical process that is not mandatory. It is
17 dependent upon voluntary and uncertain actions, including states agreeing to reissue
18 administratively continued NPDES permits, the Services having the capacity to identify when
19 any permit applicant fails to report the presence of threatened and endangered species, the
20 Services having the capacity to recommend measures to protect listed species in thousands of
21 NPDES permit proceedings, and EPA then using its discretionary permit-review authority to
22 ensure that measures recommended by the Services are included in those permits.
23
24

25 102. Finally, the Services' process-oriented Biological Opinion is arbitrary and capricious in
26 that it concludes that EPA has structured its Rule in a manner that will identify and prevent the
27 take of endangered species in the future even though, at least with respect to the take through
28

entrapment of five species of threatened and endangered sea turtles, NMFS concluded that EPA had *not* structured its Rule to provide information about or prevent take in the future.

103. For the reasons set forth above, the Services' action was inconsistent with the ESA and applicable regulations. It was arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law, contrary to the APA, and must be set aside. 5 U.S.C. § 706(2)(A).

COUNT II

[Violation of the ESA and 5 U.S.C. § 706(2)(A)]

The Services' Incidental Take Statement Violated the ESA and Applicable Regulations and is Arbitrary, Capricious, an Abuse of Discretion, or Otherwise Not in Accordance with Law

104. Plaintiffs reallege, as if fully set forth herein, each and every allegation contained in the preceding paragraphs.

105. Where the Services conclude that an action will not violate ESA Section 7(a)(2), the Service must provide with the Biological Opinion an Incidental Take Statement ("ITS") that specifies the impact, those reasonable and prudent measures necessary or appropriate to minimize such impact, specific measures necessary to comply with Section 101(a)(5) of the Marine Mammal Protection Act, and the terms and conditions that must be complied with to implement the reasonable and prudent measures. 16 U.S.C. §1536; 50 C.F.R. § 402.14(i). The Services' Incidental Take Statement does not meet these requirements.

106. The ITS does not specify the impact of the 316(b) Rule. It does not quantify the estimated "take" of listed species. The ITS cannot forgo quantifying the take by providing assurances that studies will occur at some future date. The Services must at least provide surrogate indices in place of specific numbers, which was not done here.

1 107. The ITS does not specify reasonable and prudent measures the “Secretary considers
2 necessary or appropriate to minimize such impact.” Instead, it requires EPA to “minimize”
3 impacts to threatened and endangered species, without specification. Thus, instead of requiring
4 adequate safeguards in the reasonable and prudent measures, the ITS improperly leaves it to EPA
5 and the future facility-specific analysis to identify, curtail, or modify actions that alone, or in
6 combination due to their cumulative effects, may jeopardize listed species and/or adversely
7 modify their critical habitat.
8

9 108. The ITS does not specify those measures that are necessary to comply with Section
10 101(a)(5) of the Marine Mammal Protection Act and applicable regulations with regard to such
11 takings. There is no finding of the numbers of marine mammals that may be taken during each
12 five-year period concerned or that it will have a negligible impact on such species. 16 U.S.C.
13 §1371(5)(A)(i)(I).
14

15 109. The ITS does not set forth terms and conditions that must be complied with to implement
16 the reasonable and prudent measures. Instead, it sets forth the facility-specific review process to
17 be followed by EPA, the Services and the issuers of NPDES permits.
18

19 110. The ITS does not require EPA to meet its continuing duty to provide consultation on the
20 entire action and obtain biological opinions at each step in the process under 50 C.F.R.
21 §402.14(k)(2). Nor does it ensure reinitiation of consultation as required by 50 C.F.R.
22 §§402.14(i)(4) and 402.16.
23

24 111. The ITS does not comply with the ESA and regulations concerning marine mammals.
25 Where a proposed action is likely to result in take of listed marine mammals, NMFS is
26 prohibited from issuing an ITS until the incidental take has first been authorized under the
27 Marine Mammal Protection Act. 16 U.S.C. §1536(b)(4)(C). Certain cooling water intake
28

1 structures covered by the 316(b) Rule are taking or are likely to take listed marine mammals, *e.g.*
 2 pinnipeds and other species as described in the Facts section above. Since no take has first been
 3 authorized under the Marine Mammal Protection Act for this however, NMFS was prohibited
 4 from issuing this ITS for those marine mammals. In addition, the ITS does not include mitigation
 5 measures prescribed by any Marine Mammal Protection Act take authorization or as otherwise
 6 required by §1536(b)(4)(C)(iii).
 7

8 112. For the reasons set forth above, the Services' action was inconsistent with the ESA and
 9 applicable regulations. It was arbitrary and capricious, an abuse of discretion, or otherwise not in
 10 accordance with law, contrary to the APA, and must be set aside. 5 U.S.C. § 706(2)(A).
 11

12 **COUNT III**

13 **[Violation of the ESA and 5 U.S.C. § 706(2)(A)]**

14 The Services' Biological Opinion Violated the ESA and Applicable Regulations
 15 by not being based on Best Available Science
 16 and is Arbitrary, Capricious, an Abuse of Discretion,
 17 or Otherwise Not in Accordance with Law

18 113. Plaintiffs reallege, as if fully set forth herein, each and every allegation contained in the
 19 preceding paragraphs.

20 114. Under Section 7(a)(2), 16 U.S.C. § 1536(a)(2), each federal agency shall, in consultation
 21 and with the assistance of the expert fish and wildlife agency, "insure that any action authorized,
 22 funded, or carried out by such agency (hereinafter in this section referred to as an 'agency
 23 action') is not likely to jeopardize the continued existence of any endangered species or
 24 threatened species or result in the destruction or adverse modification of habitat of such species"
 25 which has been designated as critical habitat. Such consultations must use "the best scientific and
 26 commercial data available." 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(g)(8).
 27
 28

115. The Services' Biological Opinion fails to use "the best scientific and commercial data available" as required. To comply with the ESA, the Services must seek out and consider all existing scientific data – available biological information cannot be ignored. However, as the Services' noted, EPA's biological assessment was inadequate and incomplete, contrary to 50 C.F.R. § 402.14(d). The Services' ESA Section 7 Consultation Handbook states that in cases where EPA did not provide enough information to develop the BiOp the Services will provide EPA with a rationale for the Services' determination and clear guidance on how EPA should supplement its information to be satisfactory for the development of the necessary biological opinion. The Services did not do that here.

116. In addition, the Services did not adequately seek out additional available information, in violation of their statutory mandate. As a result, the Services did not reach a thorough and reasoned opinion in accordance with the law as to whether the Rule would be likely to jeopardize endangered species or destroy their habitats. 50 C.F.R. § 402.14(g)(4).

117. For the reasons set forth above, the Services' action was inconsistent with the ESA and applicable regulations. It was arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law, contrary to the APA, and must be set aside. 5 U.S.C. § 706(2)(A).

COUNT IV

[Violation of the ESA and 5 U.S.C. § 706(2)(A)]

The Services' Findings of No Jeopardy and No Adverse Modification of Critical Habitat were Arbitrary, Capricious, an Abuse of Discretion, or Otherwise Not in Accordance with Law

118. Plaintiffs reallege, as if fully set forth herein, each and every allegation contained in the preceding paragraphs.

119. In a formal consultation, NMFS and FWS, as the expert fish and wildlife agencies, must review all relevant information and issue a biological opinion evaluating the action's effects on the listed species and making a jeopardy determination. 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.14(g)-(h).

120. The Services' "no jeopardy" and "no destruction or adverse modification of critical habitat" conclusions were arbitrary and capricious because the agencies failed to consider important aspects of the problem; and the agencies offered explanations which run counter to the evidence before the agency and/or were not rationally explained in the Biological Opinion.

121. For example, the section on NMFS covered species (Appendix C) identifies numerous species that are significantly harmed by cooling water intake systems, but then inexplicably concludes that they will not be jeopardized or have critical habitat adversely impacted. This includes but is not limited to various species of whales, seals, sea turtles, corals, salmonids and sturgeon.

122. Many of NMFS conclusions of no jeopardy and no adverse modification of designated critical habitat in the main Biological Opinion were contrary to the record before the agency. This includes but is not limited to the no jeopardy and/or no adverse modification of designated critical habitat conclusions for all species of sea turtles and salmonids; Southern resident killer whales; Atlantic, shortnose and Gulf sturgeon; Hawaiian Monk Seals; and California's highly endangered black abalone population.

123. The NMFS conclusion of no adverse modification of designated critical habitat is, for many species, inconsistent with the Biological Opinion. In Appendix C, NMFS sets forth direct or indirect alterations that appreciably diminish the value of critical habitat for both the survival and recovery of listed species. These alterations include, but are not limited to, alterations

adversely modifying physical or biological features that were the basis for determining the habitat to be critical. *See* 50 C.F.R. §402.02. This includes but is not limited to habitat for chinook salmon, other salmonids, and southern resident killer whales.

124. Many of FWS conclusions of no jeopardy and no adverse modification of designated critical habitat were contrary to the record before the agency. This includes but it not limited to for example, the no jeopardy and no adverse modification conclusion for the pallid sturgeon.

125. The gross discrepancies between many of the facts in the record and the no jeopardy and no adverse modification conclusions, the species-specific analyses provided by NMFS in Appendix C, and the complete lack of such analysis by the Fish and Wildlife Service even where adequate data on both was clearly available (in the case of the pallid sturgeon for example), demonstrates an abuse of the Services' discretion and a determination to reach no-jeopardy and no adverse modification conclusions regardless of the facts.

126. The Biological Opinion also improperly relied on the future site-specific NPDES permit review process in rendering the no-jeopardy and no-adverse modification determinations.

127. The no jeopardy and no adverse modification conclusions were further arbitrary and capricious because the Services cannot be reasonably certain that a roll out of endangered species protections one cooling water intake at a time under the Rule, at facilities regulated by states, will actually occur. Even if listed species protections are put in place through case-by-case decisions, this scheme is not reasonably certain to control the killing of listed species or avoid damaging their habitat.

128. For the reasons set forth above, the Services' action was inconsistent with the ESA and applicable regulations. It was arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with law, contrary to the APA, and must be set aside. 5 U.S.C. § 706(2)(A).

COUNT V

[Violation of the ESA and 5 U.S.C. § 706(2)(A)]

The Services' Methodology and Findings in the Biological Opinion were Arbitrary, Capricious,
an Abuse of Discretion, or Otherwise Not in Accordance with Law

129. Plaintiffs reallege, as if fully set forth herein, each and every allegation contained in the preceding paragraphs.

130. A biological opinion must assess the full effects of an action, which include:

the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline. . . . Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration.

50 C.F.R. § 402.02. However, the Services did not fully assess these effects.

131. The Services failed to evaluate the cumulative effects of the Rule in conjunction with an appropriate environmental baseline in support of their conclusions. A proper cumulative effects analysis must “take into account ‘future state or private activities, not involving Federal activities, which are reasonably certain to occur in the action area.’” 50 C.F.R. § 402.02. The Biological Opinion’s purported assessment of the environmental baseline and the effects of the action amounts to nothing more than a conclusory declaration that the effects of the action in conjunction with the environmental baseline were evaluated. There is no indication of any analysis in which the effects of the action were added to the environmental baseline, or analyzed

1 for their cumulative effect. Further, there will be no later opportunity to analyze cumulative
2 effects when each site-specific permit is assessed individually as authorized by the Rule.

3 132. The BiOp is also arbitrary and capricious because it only takes into account degradations
4 that might persist for more than a decade, *i.e.* the time in which new NPDES permits
5 incorporating controls under the new Rule will be proposed (not sooner than 45 months from the
6 effective date of the Rule, with extensions for an additional five-year permit cycle contemplated
7 in the Rule at the discretion of state agencies), plus several years for implementation. This time
8 frame ignores the life cycle and migration cycle of many species, which may be extirpated in the
9 near term.
10

11 133. One example is anadromous fish. In ten years, for example, a badly degraded habitat will
12 likely result in the total extinction of the subspecies that formerly returned to a particular creek
13 for spawning. The Services do not and cannot explain adequately their disregard of short-term
14 effects. Given the importance of the near-term period on the survival of certain listed species
15 survival, NMFS and FWS cannot justify their choice not to assess degradation over a time frame
16 that takes into account the actual behavior of the species in danger.
17

18 134. The BiOp is also arbitrary and capricious because it is based on site-specific review that
19 might not occur, or might not occur within a discernable time period. For a sizeable number of
20 the facilities that are subject to regulation under the Rule, there is no assurance that existing
21 intakes will be subject to facility-specific review in a timely manner, or indeed, ever. Many of
22 the NPDES permits for existing intakes subject to EPA's Rule have been in effect for longer than
23 their lawful period but have been administratively continued indefinitely by the states that issued
24 them. In some cases, power plant NPDES permits have been administratively continued for
25
26
27
28

1 decades. There is no guarantee that these administratively continued permits will be submitted
2 to and reviewed by the Services and finalized to include the Services' recommendations.

3 135. In addition, the Services' failed to provide individualized analysis for *each* species
4 separately. The Services' should have analyzed the impacts of the Rule on each species
5 individually, and on individual or metapopulations within each species, not just at impacts to
6 species generically. Otherwise, the Services' overlooked important impacts such as population
7 size and geographic range of particular species.

8
9 136. In sum, the Services' Biological Opinion is arbitrary and capricious because it conflicts
10 with prior positions taken by NMFS on cooling water intake systems and certain species, it is
11 contrary to or deviates from the best available scientific information, fails to collect and/or
12 evaluate all best available scientific information, is based on assumptions that are not borne out
13 in the record, it does not adequately explain the connection between the no jeopardy and/or no
14 adverse modification findings and the facts, and it relies on subsequent facility-specific analyses,
15 which are an inadequate substitute for ensuring that the Rule's implementation will avoid
16 jeopardizing some or all listed species or adversely modifying their critical habitat.

17
18 137. For the reasons set forth above, the Services' action was inconsistent with the ESA and
19 applicable regulations. It was arbitrary and capricious, an abuse of discretion, or otherwise not in
20 accordance with law, contrary to the APA, and must be set aside. 5 U.S.C. § 706(2)(A).
21

22 **PRAYER FOR RELIEF**

23 **WHEREFORE**, plaintiffs pray that this Court:
24

25 A. Declare NMFS's and FWS's Biological Opinion and Incidental Take Statement invalid
26 under the APA, 5 U.S.C. § 706(2)(A) as arbitrary and capricious, and contrary to the ESA and its
27 implementing regulations, in violation of the ESA, § 7, and the APA, 5 U.S.C. § 706;
28

1 B. Enjoin and set aside the NMFS and FWS Biological Opinion and Incidental Take
2 Statement;

3 C. Award plaintiffs their costs and attorneys' fees in this action pursuant to the Equal
4 Access to Justice Act, 28 U.S.C. § 2412; and

5 D. Grant such other and further relief as the Court may deem just and proper.
6

7
8 Respectfully submitted this 20th day of November, 2014.
9

10
11 s/ Eva Schueller

12 EVA SCHUELLER, Cal. Bar No. 237886
13 SIERRA CLUB ENVIRONMENTAL LAW
14 PROGRAM
15 85 Second Street, 2nd Floor
16 San Francisco, CA 94105
17 Telephone: (415) 977-5637
18 Facsimile: (415) 977-5793

19 ERIC E. HUBER, Colo. Bar No. 40664
20 (application for admission *pro hac vice* pending)
21 SIERRA CLUB ENVIRONMENTAL LAW
22 PROGRAM
23 1650 38th Street, Suite 102W
24 Boulder, Colorado 80301
25 Telephone: (303) 449-5595
26 Facsimile: (303) 449-6520

27 REED SUPER, Cal. Bar No. 164706
28 SUPER LAW GROUP, LLC
131 Varick Street, Suite 1033
New York, NY 10013
Telephone: (212) 242-2273
Facsimile: (855) 242-7956

Attorneys for Plaintiffs